

UNITED STATES PATENT OFFICE.

CARL AXEL ROBERT SAMSIOE, OF STOCKHOLM, SWEDEN.

ALLOY FOR DENTAL PURPOSES.

SPECIFICATION forming part of Letters Patent No. 617,359, dated January 10, 1899.

Application filed September 17, 1898. Serial No. 691,224. (No specimens.)

To all whom it may concern:

Be it known that I, CARL AXEL ROBERT SAMSIOE, dentist, of 18 Birger Jarlsgatan, Stockholm, in the Kingdom of Sweden, have
5 invented an Improved Alloy for Dental Purposes, of which the following is a specification.

In order to provide a firm support on the jaw for artificial teeth which are secured by studs and to prevent as far as possible the
10 secretion of portions of food and the like between the bottom of the teeth and the jaw, it has been customary to provide the artificial teeth at the back with a plate of gold or platinum, which is made to fit the underlying
15 portion of the inner side of the jaw. To produce the fit on the roots and jaw, it has been necessary to give this plate its proper form by pressing, a method by which, however, it has been difficult and in many cases impos-
20 sible to produce an accurate fit. In place of such plates tin has been used for the same purpose, and by the use of this material it has been possible to effect an accurate fit on the flesh of the jaw; but the said material
25 has the great disadvantage that it is not durable.

The object of this invention is the production of an alloy which is equally well adapted for the purpose as tin, while being far more
30 durable than the latter, and therefore specially suited for bridgework in dentistry.

The said alloy consists of about eighty-four per cent. tin, fifteen per cent. silver, one-half per. cent gold, and one-half per cent.
35 platinum.

Alloys of tin, silver, and gold are already in use in dentistry, more especially for mixing in a finely-divided state, as filings, with mercury, so as to form an amalgam for filling
cavities of teeth. The alloy here referred to, 40 on the other hand, is used in the form of pieces (cubes or balls) only—*i. e.*, without amalgamation—and is fused over a Bunsen flame when used. Moreover, the tin alloys employed in dentistry are comparatively hard 45 to fuse owing to their percentage of silver and gold being comparatively great, said percentage in the alloy here in question being considerably smaller than usual. The reduction in the percentage of these metals, how- 50 ever, causes a decrease in the hardness of the alloy, a disadvantage which is overcome by the addition of about one-half per cent. of platinum.

Having now particularly described and as- 55 certain the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

An alloy for dental purposes consisting of eighty-four per cent. of tin, fifteen per cent. 60 of silver, one-half per cent. of gold, and one-half per cent. of platinum, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CARL AXEL ROBERT SAMSIOE.

Witnesses:

H. TELANDER,
BIRGER LINDH.